

Listing of Claims

Claims 1-24 (Canceled)

25. (currently amended) A semiconductor component comprising:

a substrate having a surface;

a conductive layer comprising a plurality of first portions and a plurality of second portions substantially covering the surface;

GI a plurality of conductors on the surface comprising the first portions of the conductive layer separated from one another by the second portions of the conductive layer; ~~defined by a plurality of grooves comprising ablated portions of the conductive layer, the conductors comprising portions of the conductive layer electrically isolated by the grooves and separated by remaining portions of the conductive layer having edges defined by the grooves; and~~

a plurality of grooves in the conductive layer defining a size, a spacing and a shape of the conductors and the second portions of the conductive layer; and

at least one semiconductor die on the substrate in electrical communication with the conductors.

26. (previously presented) The semiconductor component of claim 25 wherein the conductors comprise a plurality of pads and the semiconductor die is wire bonded to the pads.

27. (previously presented) The semiconductor component of claim 25 wherein the semiconductor die is flip chip mounted to the conductors.

28. (previously presented) The semiconductor component of claim 25 wherein the substrate comprises a material selected from the group consisting of plastic,

glass filled resin, silicon, ceramic, metal, germanium, and gallium arsenide.

29. (previously presented) The semiconductor component of claim 25 wherein the conductors comprise a plurality of contacts adapted for electrical connection to outside circuitry.

30. (currently amended) A semiconductor component comprising:

a substrate having a surface;

91 a conductive layer comprising a metal foil attached to and substantially covering the surface;

a plurality of conductors on the surface comprising the metal foil;

~~defined by a plurality of grooves comprising ablated portions of the metal foil, each conductor comprising a portion of the metal foil electrically isolated by at least one pair of grooves and separated from an adjacent conductor by a remaining portion of the metal foil; and~~

a plurality of grooves in the metal foil defining a size, a spacing and a shape of the conductors, each conductor defined by a groove and having a portion of the metal foil on either side separated by the groove; and

a semiconductor die flip chip mounted or wire bonded to the substrate in electrical communication with the conductors.

31. (previously presented) The semiconductor component of claim 30 further comprising a plurality of contacts on the conductors adapted for electrical connection to outside circuitry.

32. (previously presented) The semiconductor component of claim 30 further comprising a plurality of conductive vias in the substrate in electrical

communication with the conductors and with a plurality of contact balls on a second surface of the substrate.

33. (previously presented) The semiconductor component of claim 30 wherein the component comprises a chip module, a multi chip module or a package.

34. (previously presented) The semiconductor component of claim 30 further comprising an encapsulant at least partially covering the semiconductor die and at least a portion of the surface.

35. (currently amended) A semiconductor component comprising:

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a substrate having a surface;
a conductive layer substantially covering the surface;
a plurality of conductors on the surface comprising first portions of the conductive layer;
~~separated by remaining portions of the conductive layer,~~
~~the conductors defined and electrically isolated by a~~
~~plurality of grooves comprising ablated portions of the~~
~~conductive layer, each conductor and each remaining portion~~
~~defined by at least one pair of grooves;~~

a plurality of grooves in the conductive layer
defining a size, a spacing and a shape of the conductors,
each conductor defined by a pair of grooves and separated
from an adjacent conductor by a second portion of the
conductive layer having an edge defined by a groove; and

a semiconductor die on the substrate in electrical communication with the conductors.

36. (previously presented) The semiconductor component of claim 35 wherein the die is flip chip mounted or wire bonded to the conductors.

37. (currently amended) The semiconductor component of claim 35 wherein the conductors comprise a plurality of pads bonded to the die and a plurality of contacts adapted for electrical connection to outside circuitry.

38. (previously presented) The semiconductor component of claim 35 wherein the substrate comprises a semiconductor material and an electrically insulating layer on the surface.

GI 39. (previously presented) The semiconductor component of claim 35 wherein the substrate comprises a material selected from the group consisting of plastic, glass filled resin, ceramic, silicon, metal, germanium, and gallium arsenide.

Claims 40-46 (canceled)

47. (currently amended) A semiconductor component comprising:

a substrate having a surface;
a conductive layer substantially covering the surface;
and

a plurality of conductors on the surface and a plurality of grooves in the conductive layer defining a size, a shape and a spacing of the conductors, each conductor having opposing edges defined by a pair of grooves, each conductor having portions of the conductive layer on either side separated from the opposing edges by the pair of grooves; and

a semiconductor die on the substrate in electrical communication with the conductors.

~~defined by a plurality of grooves comprising ablated portions of the conductive layer, the conductors comprising portions of the conductive layer which are electrically isolated from one another by the grooves and separated by~~

~~remaining portions of the substrate having edges defined by the grooves, the conductors comprising first contacts on first ends thereof and second contacts on second ends thereof, and~~

~~a semiconductor die on the substrate bonded to the first contacts.~~

48. (currently amended) The semiconductor component of claim 47 wherein the semiconductor die is flip chip mounted or wire bonded to the conductors. ~~first contacts.~~

49. (previously presented) The semiconductor component of claim 47 wherein each conductor has a first width of about 5 μm .

50. (previously presented) The semiconductor component of claim 47 wherein each groove has a second width of about 5 μm .

51. (previously presented) The semiconductor component of claim 47 wherein the conductive layer includes an opening for attaching the die to the substrate.

52. (currently amended) A semiconductor component comprising:

a substrate having a surface;

a conductive layer substantially covering the surface having a plurality of first portions and a plurality of second portions;

a plurality of conductors on the surface having a size, a spacing, and a shape defined by a plurality of grooves through the conductive layer, each conductor comprising a first portion of the conductive layer separated from an adjacent conductor by a groove and a second portion of the conductive layer;

~~comprising ablated portions of the conductive layer, the conductors comprising portions of the conductive layer electrically isolated by the grooves and separated by remaining portions of the conductive layer having edges defined by the grooves,~~

a plurality of conductive vias through the substrate in electrical communication with the conductors; and

a semiconductor die on the substrate in electrical communication with the conductors.

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53. (currently amended) The semiconductor component of claim 52 further comprising a plurality of contacts ~~balls~~ on the substrate in electrical communication with the conductive vias.
~~and arranged in a ball grid array.~~
